

UNITED STATES PATENT OFFICE.

DANIEL W. BROWN, OF WESTPLAINS, MISSOURI.

TANNING COMPOUND.

SPECIFICATION forming part of Letters Patent No. 680,222, dated August 13, 1901.

Application filed September 8, 1900. Serial No. 29,424. (No specimens.)

To all whom it may concern:

Be it known that I, DANIEL W. BROWN, a citizen of the United States, residing at West-plains, in the county of Howell and State of Missouri, have invented a new and useful Tan-
5 nning Compound, of which the following is a specification.

The present invention relates to composi-
10 tions of matter used in connection with proc-
esses for tanning and dressing hides; and the
object is to provide a compound composed of
inexpensive ingredients which have great
penetrating power and act speedily and ef-
fectively on the hides, with a resultant leather
15 that is firm, flexible, and waterproof.

The ingredients generally used in the com-
pound are gambier, (*Uncaria gambier*), ex-
tract of crane's-bill, (*Geranium*), oil of birch,
(*Betula*), and hardhack, (*Spiraea tomentosa*);
20 but the last named may be omitted when tan-
ning certain grades of leather and any other
well-known chemical equivalent containing
tannin may be used in place of gambier.

While the proportions may be varied as
25 desired, from actual experience the following
combinations of ingredients have been found
to give excellent results: For calf, sheep,
goat, deer, and similar hides one and one-
half pounds gambier, one-half ounce fluid ex-
tract of crane's-bill, one-half ounce oil of
30 birch, and three gallons water. The hides
should remain in this compound or "ooze"
from twelve to twenty-four hours. For one to
two years' yearling hides, two and one-half
pounds gambier, one ounce fluid extract
35 crane's-bill, one ounce oil of birch, and five
gallons of water. The hides should remain in
this compound or ooze from two to four days.
For cow and ox hides, three to five pounds
40 gambier, two ounces of fluid extract crane's-
bill, two ounces oil of birch, and five or six
gallons of water. The hides should remain in
the compound or ooze from five to ten days.
In tanning sole-leather an ounce of hardhack
45 is added.

The manner of preparing the compound or
ooze is as follows: The gambier is dissolved
in the water, which is first heated, strained
through tow-cloth, and then it must be al-
50 lowed to cool until luke-warm, after which

the hides are dipped into the same a little at
a time and aired several times until cool.
The hides are then immersed and allowed to
remain about twenty-four hours to color and
set the grain, after which the remaining in-
55 gredients are added, as above described, and
the hides are again immersed the required
length of time.

The preferred process of tanning is as fol-
lows: The hides are soaked until perfectly
60 soft and the loose flesh is removed. They
are then immersed in a thin batter of slaked
lime and water and remain in the same until
the hair slips, (being removed and replaced
several times for the purpose of airing,) where-
65 upon they are taken from said batter and the
hair removed. They are then placed in
changes of clear water until the lime is elimi-
nated, after which they are immersed in the
solution or ooze, as above described. After
70 having passed through this solution they are
thoroughly washed to eliminate the solution
and are hung in the shade until partially dry.
The grain side is then oiled and slicked in
the usual manner.
75

The crane's-bill thoroughly removes the
glue and takes the place of the acids now
commonly used. The oil of birch when used
in connection with the other ingredients co-
acts therewith. Being an oil it is a preserv-
80 ative of leather, preventing any cracking of
the grain and rendering the leather pliable,
not only during the process of tanning, but
after said process is finished. It also pre-
vents molding of the tanned leather, which
85 is a serious defect in those processes in which
barks alone are employed. While in the
ooze, the pores of the hide are open. Hence
the oil will penetrate and act as a vehicle in
carrying the active tanning agents through
90 the pores. By actual test I have demonstrated
that the tanning process is facilitated by the
use of oil of birch. The hardhack makes the
leather firm and waterproof.

While the ingredients and process have been
95 described with great minuteness, it is to be
understood that the compound is open to
change and modification within the scope of
the appended claims.

Having now fully described the compound, 100

what is claimed, and desired to be secured by Letters Patent, is—

1. A tanning compound, composed of gambier, extract of crane's-bill, and oil of birch.
- 5 2. A tanning compound composed of gambier, extract of crane's-bill, oil of birch and hardhack.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DANIEL W. BROWN.

Witnesses:

J. B. WILSON,

J. F. HALE.